Azevedo, George

From: Bauer, Candice
Sent: Friday, October 20, 2017 2:45 PM
To: Azevedo, George
Subject: FW: Starbuck
Attachments: 2023_001.pdf; 07020005_Chippewa R_TP Watershed Review_9.16.2015_v1.0.docx

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From: Weiss, Steven (MPCA) [mailto:steven.weiss@state.mn.us]
Sent: Wednesday, May 17, 2017 4:16 PM
To: Bauer, Candice <bauer.candice@epa.gov>; McKim, Krista <mckim.krista@epa.gov>
Cc: Blasing, Nicole (MPCA) <nicole.blasing@state.mn.us>; Kaufenberg, Elizabeth (MPCA) <elizabeth.kaufenberg@state.mn.us>; Kvittem, Holly (MPCA) <holly.kvittem@state.mn.us>
Subject: Starbuck

Krista,

I wanted to follow up on a few items specific to the city of Starbuck WWTP permit after our discussion yesterday. The Chippewa River at the outlet of the watershed (07020005-508) contains 4 chlorophyll-a (Chl-a) samples with an average concentration of 63 µg/L. There are two primary reasons why these samples are not used to derive limits for the Starbuck permit during this review cycle; location and quantity.

Location of Sample Site
First, reach 508 is located at the outlet of the Chippewa River Watershed. The city of Starbuck discharges most immediately upstream of Lake Emily. EPA recently approved a TMDL for Lake Emily[1] and the limit for the city of Starbuck WWTP permit is equivalent to the annual wasteload allocation (WLA). The TMDL is designed to meet 90 µg/L TP. It stands to reason that a limit designed to meet 90 µg/L would be sufficient to protect a higher criterion (150 µg/L) farther downstream. No evidence is available to suggest a more restrictive limit is necessary, than what is currently being recommended on the basis of the TMDL.

# of Samples
Regardless of the location of the sample site relative to the outfall, four chl-a samples do not meet the minimum sampling requirements as defined by p. 44 of Minnesota's water quality assessment guidance manual[2]. MPCA is committed to making data based decisions. Two summers and a minimum of 12 paired samples are necessary to define a long-term summer concentration when averaged over all flows. The basic idea is that a small number of samples may not capture climactic variability over multiple summers. If we don't accurately evaluate WQ prior to making management decisions, we increase the odds of type I and II errors.

Minn. R. 7053.0205 Subp. 7. C.

> C. Discharges of total phosphorus in sewage, industrial waste, or other wastes must be controlled so that the eutrophication water quality standard is maintained for the long-term summer concentration of total phosphorus, when averaged over all flows,

As for the averaging period question, the Minnesota Court of Appeals recently affirmed MPCAs reading of the rule and the application in NPDES permits. See pages 15 and 16 of the attached.

As mentioned in the meeting, MPCA will be doing intensive watershed monitoring in the Chippewa River Watershed in 2019 and 2020. The exact sites have not yet been chosen but Limits staff will provide input on optimal sampling locations. We typically have 4 or 5 sites to consider. Facility size and other site specific features will be used to determine sites. For sure, we will collect TP and Chl-a samples at reach 508, the outlet of the major watershed.

Let me know if you have additional questions regarding the Starbuck permit or the watershed.

Steve

[1] https://www.pca.state.mn.us/sites/default/files/wq-iw7-35e.pdf

[2] Assessment and monitoring guidance. P.44. https://www.pca.state.mn.us/sites/default/files/wq-iw1-04i.pdf

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[2] Assessment and monitoring guidance. P.44. https://www.pca.state.mn.us/sites/default/files/wq-iw1-04i.pdf